## CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

ORDER NO. 95-040

### REISSUANCE OF WASTE DISCHARGE REQUIREMENTS FOR:

### U.S. ARMY CORPS OF ENGINEERS, SAN FRANCISCO DISTRICT

#### CALENDAR YEARS 1995 THROUGH 1996

### MAINTENANCE DREDGING

The California Regional Water Quality Control Board, San Francisco Bay Region (Regional Board), finds that:

- 1. The U.S. Army Corps of Engineers, San Francisco District (hereinafter the Discharger) maintains the navigability of Federally authorized channels in the San Francisco Bay.
- 2. The Discharger's dredging proposal consists of the San Pablo Bay-Mare Island Strait, the Richmond Harbor, the Oakland Harbor, Suisun Bay Channel, Petaluma (Across-the-Flats), San Pablo Bay-Pinole, San Rafael Creek (River Channel) and Suisun Channel (Slough) projects remove accumulated sediment (primarily silt and clay) by hydraulic (e.g. self-propelled hopper; hydraulic cutter head) or mechanical (e.g. clamshell) dredge and disposes of the material by either self-propelled hopper or dump scow at a designated aquatic disposal site. Additionally, the Discharger carries out dredging and disposal at upland locations for the following projects: San Leandro Marina, Napa River, New York Slough, Suisun Bay Channel and Petaluma Riveracross the flats.
- 3. The San Pablo Bay Mare Island Strait project historically removes between 255,000 and 2.3 million cubic yards and disposes of the material at the U.S. Army Corps of Engineers (COE) identified site at the Carquinez Strait (SF-9).
- 4. The Richmond Harbor project historically removes between 129,000 and 1.2 million cubic yards and disposes of the material at the COE identified site west of Alcatraz Island (SF-11).
- 5. The Oakland Harbor project historically removes between 113,000 and 870,000 cubic yards annually and disposes of material at the COE identified site west of Alcatraz Island (SF-11).
- 6. The Suisun Bay Channel project historically removes between 29,000 and 567,000 cubic yards annually and disposes of the primarily sandy material at the Suisun Bay disposal site (not numbered). In 1994, the Corps transported the dredged sediment to

Jersey Island in the Delta in order to bolster the island levees. Placement of the sediment on Jersey Island was a demonstration project under the Long Term Management Plan (LTMS). Approximately 40,000 cubic yards of material was dredged and transported to Jersey Island where it was placed a portion of the levee. The demonstration project was a joint venture between the San Francisco District Corps, the State Department of Water Resources and Reclamation District 830.

- 7. The Petaluma (Across-the-Flats) project historically removes between 266,000 and 788,000 cubic yards every three years and disposes of the material at the COE identified site in San Pablo Bay (SF-10). In 1994 the Corps of Engineers dredged approximately 264,000 cubic yards of sediment from the Petaluma ATF site with placement at the Sonoma Baylands Wetlands Restoration Project. The material was placed at Sonoma Baylands as part of the "pilot" portion of the Sonoma Baylands project. (The remaining 2.5 million cubic yards needed for the project will come from the Port of Oakland Navigational Improvement project.)
- 8. The San Pablo Bay-Pinole project historically removes between 47,000 and 2.3 million cubic yards every two years and disposes of the material at the COE identified site in San Pablo Bay (SF-10).
- 9. The San Rafael Creek (across the Flat) project historically removes between 127,000 and 200,000 cubic yards every three years and disposes of the material at the COE identified site west of Alcatraz Island (SF-11). In 1993 one portion of this project (the east end of channel) was found to be unsuitable for aquatic disposal, based upon toxicity. Due to the toxicity of the one portion (estimated in 1993 to be 45,000 cubic yards in volume) the project was not dredged. The Corps and/or local sponsor have not identified an alternative (upland) disposal site.
- 10. The Redwood City Harbor project historically removes between 244,000 and 910,000 cubic yards every three years and disposes of the material in the COE identified site west of Alcatraz Island (SF-11).
- 11. The Discharger as a lead agency has determined that the proposed project and its impacts are similar to those considered in the Final Composite Environmental Impact Statement on Maintenance Dredging, Existing Navigation Projects, San Francisco Bay Region, California, December 1975. Therefore, no further environmental documentation is required to comply with NEPA for the 1995-1996 maintenance dredging. In addition, the proposed maintenance dredging is exempt from CEQA pursuant to Section 15304(g) of the Resources Code because the material is to be deposited at a site formally approved by U.S.EPA and USACOE.
- 12. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (the Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for San Francisco Bay. The Regional Board adopted an amendment to the Basin Plan on the Regulation of Dredged Sediment Disposal in the San Francisco Bay on July 19, 1989. The State Board approved the Basin Plan amendment on January 18, 1990.
- 13. Dredging activities and disposal at dispersive sites is known to temporarily increase

- the suspended sediments in the Bay. Effects of increased sediment loading is thought to have a deleterious effect on Bay fisheries and other Beneficial Uses.
- 14. The Regional Board recognizes that the continued disposal of maintenance work will require a demonstration that there are no significant or irreversible impacts occurring from the disposal of maintenance dredged material in San Francisco Bay. The Regional Board recognizes the COE expertise in this area and encourages the Discharger to implement the Long Term Management Plan (LTMS) for dredged material. The Regional Board will continue to participate in the development and review of LTMS studies and activities.
- 15. The disposal of dredged sediment in San Francisco Bay is suspected of having an adverse impact on some of the Estuary's beneficial uses. In order to assess the impacts to the Bay's resources from dredging, and dredged material disposal, comprehensive and detailed studies of dredging and dredged material disposal and their relationship to all chemical, physical and biological processes are necessary.
- 16. Little information is available to assess the cumulative and long-term effects of this activity. Therefore, studies are warranted to better ascertain what effects are occurring and the feasibility of mitigating these impacts by the application of technology and best management practices. Of particular concern is the impact of how dredge disposal alters current patterns and dispersion of sediment in the Estuary, the effects of suspended sediment on turbidity, and how dredge disposal effects the bioavailability of toxic substances and subsequent acute and chronic effects in the Estuary. The Regional Board recognizes the lack of information about these concerns and therefore endorses a study-based approach to monitor the effects of dredging and dredge disposal.
- 17. The Regional Board implemented the Regional Monitoring Program (RMP) in April of 1992. The RMP is a coordinated and comprehensive, long-term monitoring program which will provide resources for the monitoring of water and sediment quality to determine compliance with relevant numerical objectives, and to study bioaccumulation, at an array of Bay locations. Additionally, the RMP provides for focused studies of "problematic" issues faced by the dredging community and other Bay Area dischargers (e.g. reference site characterization, bioaccumulation of toxic substances in fish for human consumption).
- 18. The Discharger is a participant in the RMP and contributes to the program by funding monitoring carried out by the United States Geological Survey (USGS). The work conducted by USGS under the RMP consists of data collection and analysis at various stations within the south, central and northern portions of the San Francisco Bay. The purpose of the program is primarily to develop time-series suspended sediment data in order to better understand sediment transport processes and to create a comprehensive database for various numerical (computer) modelling efforts.
- 19. The Discharger has contributed to the implementation of a comprehensive regional monitoring program for pollutants and sediment transport.
- 20. The Discharger has conducted studies which show that dredged material from the

- Pinole Shoal, Suisun Bay Channel and New York Slough (Findings No. 6, 8) is primarily sand that has readily identifiable beneficial uses.
- 21. In 1993, the Discharger dredged the Suisun Bay Channel in order to demonstrate that dredged material from the Suisun Bay could be placed on Delta island levees for the purposes of levee stabilization.
- 22. The Suisun Bay Channel disposal site is routinely dredged by a commercial sand mining company. The Regional Board will continue to explore ways in which commercial sand mining operations can work in partnership with the Discharger in the Suisun Bay and other areas were the dredged material has a high sand content.
- 23. The Discharger has conducted surveys of the Alcatraz disposal site (SF-11) which show a decline in depth and unexpected bottom topography ("mounding"). The Discharger will continue to monitor disposal site characteristics as a part of this Order.
- 24. The Alcatraz disposal site is operated as a "dispersive" site, that is material disposed of at the site is dispersed by currents, and the site remains at a relatively constant depth.
- 25. The LTMS is developing alternative disposal options which may result in changing the designated disposal sites for the aforementioned projects in order to maximize beneficial uses of the dredged sediment. In particular, these Requirements specify that the Discharger must consider ocean and upland disposal for all major projects in fiscal year 1996.
- 26. Target volumes for the dredged material disposal sites are contained in the Basin Plan as follows.

The maximum monthly volume targets cubic yards (C.Y.) of dredge sediment allowed for disposal at each site are:

Site	Target Volume(C.Y.)	
Alcatraz (SF-11)		
October - April	1.0 million	
May - September	0.3 million	
Carquinez Strait (SF-9)		
(any month)	1.0 million	
San Pablo Bay (SF-10)	0.5 million	

The maximum annual volume targets in cubic yards (C.Y.) for each calendar year at each disposal site are:

Site Target Volume(C,Y.)

Alcatraz (SF-11) 4.0 million

Carquinez Strait (SF-9) 2.0 million (NY)

3.0 million (WY)

San Pablo Bay (SF-10) 0.5 million

The volume targets for the Carquinez Strait disposal site are 3.0 million cubic yards for wet and above normal years (WY) and 2.0 million cubic yards for all other year classification (NY). Water year classification are designated by the California Department of Water Resources (DWR).

- 27. In response to mounding problems, the Regional Board and Discharger propose to significantly reduce the allowable monthly disposal rates and volumes at the Alcatraz site (COE Public Notice No. 93 -3). The result of the Corps' policy on Alcatraz site target volumes may result in a lower allowable quantity of material permitted to be disposed of at the Alcatraz site.
- 28. For disposal of dredged material at the Alcatraz site (SF-11), the Discharger has implemented guidelines for sediment testing which require the dredge disposal permittee to compare test results against the Alcatraz site "Environs" reference. The Alcatraz Environs is a composite of eight points which surround the disposal site. In that the disposal site is highly dynamic, the Environs reference was implemented in order to better assess local "background" conditions. Unfortunately, use of the Environs has resulted in various technical and procedural problems. However, recent changes in federal regulations now allow use of reference sites in areas that are different from the disposal site ("off-site"). Regional Board staff will work closely with the Discharger to study alternative reference sites which are more appropriate for maintenance dredging projects.
- 29. The beneficial uses of San Francisco Bay in the vicinity of the dredging and disposal areas are:
  - a. Fish migration and spawning
  - b. Estuarine habitat
  - c. Wildlife habitat
  - d. Preservation of rare and endangered species
  - e. Water contact and non-contact water recreation
  - f. Shellfish harvesting
  - g. Commercial and sport fishing
  - h. Navigation
  - i. Industrial process and service supply

- 30. The study of the impacts of bay disposal is a long-term project and will be incorporated into all future Waste Discharge Requirements of the Discharger.
- 31. The Discharger and interested persons have been notified of the Regional Board's intent to issue requirements for the discharge and have been provided with the opportunity to submit their written comments.
- 32. The Regional Board, in a properly noticed public hearing on <u>February 15, 1995</u>, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED, pursuant to the provisions of Division 7 of the California Water Code and regulations adopted thereunder and to the provisions of the Federal Water Pollution Control Act, as amended, and regulations and guidelines adopted thereunder, that the Discharger shall comply with the following:

### A. RECEIVING WATER LIMITATIONS

- 1. The dredging and disposal activities shall not create a nuisance as defined in Section 13050(m) of the California Water Code.
- 2. The discharge of waste shall not cause the following conditions to exist in waters of the State that cause a nuisance or adversely affect beneficial uses at any place:
  - a. Floating, suspended, or deposited macroscopic particulate matter or foam;
  - b. Aquatic growths;
  - c. Significant alteration of temperature, turbidity, or apparent color beyond present natural background levels;
  - d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;
  - e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

3. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved Oxygen	5.0 mg/l minimum. Median of any three consecutive months shall not be less than 80% saturation. When natural factors cause lesser concentration(s) than those specified above, then this discharge shall not cause further reduction in
		this discharge shall not cause further reduction in
		the concentration of dissolved oxygen.

b. Dissolved suffice our mg/1 maximum	b.	Dissolved sulfide	0.1 mg/l maximum
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c.	pH	Variation from natural ambient pH by more than
		0.5 pH units.

d.	Un-ionized ammonia	0.025 mg/l as N Annual Median
		0.16 mg/l as N Maximum

e.	Turbidity	The turbidity of the waters of the state at any
		point beyond 200 feet outside of the disposal area
		shall not increase above background levels by

more than the following:

Receiving Water Background	<u>Incremental Increase</u>	
< 50 units	5 units, maximum	
50 - 100 units	10 units, maximum	
> 100 units	10% of background, max	

4. The Discharger shall not cause a violation of any applicable water quality objectives for receiving waters adopted by the Regional Board and the State Water Resources Control Board as required by the Clean Water Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Clean Water Act, or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

### B. PROVISIONS

- 1. A quarterly summary report (Quarterly Report) of all Bay Area dredging activities shall be submitted in accordance with the attached Self-Monitoring Program. The Report shall include a discussion of the results of monitoring described by sections 2 though 4 of these Provisions.
- 2. <u>Disposal Activities</u> Forecast: The Discharger shall provide project information for upcoming projects in advance of dredging projects. The Discharger shall request in writing, approval (authorization) for each dredging project. The Discharger shall

submit the Request for Authorization which shall include the following.

- a. A written Request submitted at least 20 working days in advance of the start of dredging.
- b. Estimates of dredged material to be removed from each project, based upon current condition bathymetric surveys and dredging history.
- c. Original copies of all laboratory results and finding, including all results of sediment testing and analysis.
- d. All projects shall be evaluated based upon estimated disposal volume and disposal site target volume limits for the dredging to be conducted in the upcoming quarter. Disposal at the proposed site by non-Corps projects shall be discussed in the Request.
- 3. <u>Disposal Activities Record</u>: The Discharger is required to keep track of all disposal activity taking place at the in-bay aquatic disposal sites. On a quarterly basis, the Discharger shall provide a summary and discussion of disposal site capacity and topography for all three of the in-bay disposal sites: SF-9, SF-10 and SF-11, and upland disposal and re-use sites. This requirement is applicable to all quarters in which disposal occurred by any dredger at the site.

The report shall include recent bathymetric surveys for each of the three in-bay disposal sites: SF-9, SF-10 and SF-11,. The Report shall contain graphical summaries of total site usage by all dredgers, and shall summarize site usage in accordance with the attached Self-Monitoring Program.

- 4. <u>Disposal Site Volume Targets</u>: The Discharger shall comply with the volume targets specified by the Regional Board in this Order (Finding 26), and contained in the Regional Board's Basin Plan, <u>or</u> the Corps' draft policy on Alcatraz Disposal Site management, described in Public Notice 93-3, or any subsequent final policy, <u>which ever is lower</u>.
- 5. The Discharger shall conduct physical, chemical, and biological sediment characterization of the sediment to be disposed in San Francisco Bay in accordance with approved protocols and guidelines or other protocols subject to approval by the Regional Board's Executive Officer, and as described in the attached Self-Monitoring Program.
  - a. All sediment testing and analysis carried out for dredging projects to be started during the 1995 fiscal year shall be in accordance with Public Notice 93-2, or other protocols approved by the Regional Board's Executive Officer.
  - b. All sediment testing and analysis carried out for dredging projects to be started in the 1996 fiscal year shall be in accordance with Evaluation of Dredged

<sup>1. &</sup>quot;Start" is defined as the date during the contractual process when the federal "Notice to Proceed" is issued.

Material Proposed for Discharge in Waters of the U.S. -Testing Manual (Draft) or subsequent final; the Evaluation of Dredged Material Proposed for Ocean Disposal.-Testing Manual (Final); also referred to as the "Green Book", or other protocols approved by the Regional Board's Executive Officer.

- 6. The Discharger shall prepare an Annual Progress Report (Annual Report) to the Regional Board which will describe the activities of the previous year and measures taken by the Discharger to minimize or eliminate threats or impacts to waters of the state and associated beneficial uses. The Annual Report shall discuss in detail, efforts made to enter into contacts or agreements which allow for the beneficial use of dredged material and other upland disposal alternatives. The Annual Report will be due on February 1, 1996 and 1997.
- 7. The Discharger will continue to support ambient suspended particulate monitoring by the United States Geological Survey (USGS) as described in the attached Self-Monitoring Program.
- 8. The discharge of dredged materials to the waters of the State shall cease immediately whenever violations of requirements are detected by the self-monitoring program or inspections by Regional Board staff as determined by the Executive Officer, and the discharge shall not resume until compliance can be assured to the Executive Officer's satisfaction.
- 9. The Discharger shall analyze, through the NEPA process, the impacts of dredging on herring spawning, in applicable regions, as determined by the Department of Fish and Game with concurrence of the Executive Officer.
- 10. The Executive Officer, in consultation with the District Engineer shall make a determination for each maintenance dredging episode of the appropriateness of in-Bay disposal and may require disposal at another site in order to meet overall dredged material management goals.
- 11. The Discharger shall comply with all sections of this Order immediately upon commencement of dredged material disposal.
- 12. The Discharger shall permit the Regional Board or its authorized representative in accordance with California Water Code Section 13267(c):
  - a. Entry upon premises in which any required records are kept.
  - b. Access to copy any records required to be kept under terms and conditions of this order.
  - c. Inspection of monitoring equipment or records.
  - d. Sampling of any discharge.
- The Discharger shall comply with all applicable items of the attached "Standard Provisions, Reporting Requirements and Definitions" dated December 1986.

- 14 This Order supersedes Order No. 93-015.
- This Order will expire on March 1, 1997, and upon submittal of all required reports to the satisfaction of the Executive Officer.

I, Steven R. Ritchie, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on <u>February 15, 1995</u>.

STEVEN R. RITCHIE EXECUTIVE OFFICER

File No. 1535.05

Attachment: Self-Monitoring Program

# CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

U.S. ARMY CORPS OF ENGINEERS

MAINTENANCE DREDGING AND DISPOSAL SITE MANAGEMENT

FOR

CALENDAR YEAR 1995 THROUGH 1996

ORDER NO. 95-040

## I. GENERAL REQUIREMENTS

Reporting responsibilities of Dischargers are specified in Sections 13260(a), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16. The principal purposes of a monitoring program by a Discharger, also referred to as a self-monitoring program are to (1) document compliance with waste discharge requirements and prohibitions established by this Regional Board and (2) facilitate self-policing by the Discharger in the prevention and abatement of pollution arising from waste discharge.

For the Discharger's maintenance dredging, calendar years 1995-1996, quarterly reporting of environmental monitoring and assessment is required.

The Discharger shall conduct all physical, chemical, and biological testing and sediment characterization in accordance with the draft Standard Methods Manual for Environmental Sampling and Analysis in San Francisco Bay, Battelle 1992, subsequent interim draft of the Manual, or other methods and protocol approved by the Regional Board's Executive Officer. Sampling and Analysis Plans (SOP) for each project shall be designed in accordance with the draft Testing Guidelines For In-Bay Disposal of Dredged Material Disposal, USACOE Public Notice 93-2; and with Evaluation of Dredged Material Proposed for Discharge in Waters of the U.S. -Testing Manual (Draft) or subsequent final; and the Evaluation of Dredged Material Proposed for Ocean Disposal.-Testing Manual (Final); A.K.A. "Green Book", or other protocols approved by the staff of the Regional Board.

## II. ROUTINE DREDGING PROJECT TESTING AND MONITORING

## A. <u>Dredging site</u>

The following information shall be submitted to the staff of the Regional Board:

- 1. Pre-dredging bathymetric surveys for each dredge site shall be submitted prior to the commencement of dredging. Post-bathymetric surveys shall be submitted on a quarterly basis, after the completion of each project. Dredging surveys maybe submitted to the Regional Board staff on an electronic media (diskette), and in a format which is acceptable to the Regional Board.
- 2. A Sampling and Analysis plan (SAP) for each dredging project shall submitted at least <u>90</u> days in advance of the start of dredging. Each SAP shall be submitted for the approval of Regional Board staff. The SAP shall describe in detail where and how samples will be taken and which analytical methods will be employed. The SAP shall also describe the environment and location of the project, any unique characteristics of the dredging project site.
- 3. Each SAP shall specify the **proposed test methods** to be employed, reference sites to be included, estimated project volume and the rational for testing methodology. Sediment chemical and biological characterization shall be conducted at each proposed site following USACOE/USEPA testing manuals for ocean and inland disposal.

USACOE WDR: Self Monitoring Program 1995/96 4. A report of the **results** of physical, chemical, and biological testing and analyses shall be filed with the Regional Board, for the approval of the Executive Officer, at least <u>20</u> working days prior to commencement of dredging of any project covered under this Order.

### B. <u>Disposal sites activities</u>:

For all designated in-Bay disposal sites, A Quarterly Report shall be submitted to staff of the Regional Board. The Report shall include the following:

- 1. Tracking and evaluation of material disposed at the sites, including volumes of material disposed. A discussion and **summary of disposal** site activities shall be graphed to visually present summary information, for example summary bar graphs, line graphs, graph against time, etc. The Report shall include a discussion of the frequency of disposal site usage (rate of disposal).
- 2. Recent bathymetric surveys of the disposal sites shall be taken on a quarterly basis. Surveys shall be submitted as a part of he Quarterly report. The survey data may be submitted on magnetic media, in an electronic format acceptable to the staff of the Regional Board.
- 3. Any results of disposal site **modelling** not otherwise required for approval of a particular maintenance dredging project.
- 3. The Report shall contain **graphical summaries** of total site usage. The Report shall include, but need not be limited to:
  - (a) quantity of material disposed per day
  - (b) identity of project including name of permittee and corresponding Corps permit number,
  - (c) type of material disposed (i.e, slurry, clam-shell, new worknative sediment, etc)

### III. SPECIAL STUDIES AND MONITORING

- 1. The Discharger shall submit **two** documents on the re-use and reclamation of sand. A report on sand re-use for Delta levee rehabilitation and a report or paper on sand mining shall be prepared as a Special Study. Preparation of the reports shall be coordinated with the staff of the Bay Conservation and Development Commission, State Lands Commission and the state Department of Water Resources. Final copies of both documents shall be made available to the LTMS Policy Review Committee (PRC) and other interested members of the general public.
  - a. The Discharger shall submit for approval of the Regional Board staff, a report on levee restoration. The Discharger shall submit a report to the Regional Board which discusses the "Lessons Learned" in carrying out the Suisun Bay demonstration project. The report should describe in detail how sediment can be transferred to an upland Delta levee site, upland sand mining facility or

other applicable site. The lessons learned report shall be submitted in draft form on October 1, 1995. A final report shall be due by March 1, 1996.

b. A second report or "paper" on the re-use by sand mining interests. The report would address the potential for transfer of sand-laden dredged material from federally authorized channels, to private sand mining companies. The report should describe in detail the procedures and policies which govern contracting with public and private entities (i.e., federal-private partnership, joint ventures, etc) for transportation to the end-use or market. The report should also include a discussion of fees required by the State Lands Commission for sand reclamation and mining and how that fee would impact potential joint dredging projects. The report on sand mining shall be due October 1,1995.

The Discharger shall implement the monitoring of suspended sediment ambient conditions as follows:

- a. The Discharger shall continue to fund collection of salinity and sediment concentration time series data by the United States Geological Study (USGS), in similar fashion as the was done during 1994 and 1995 federal fiscal years.
- b. The USGS work consists of data collection at seven Central and North Bay sites.
- c. Implementation or funding of the USGS study, as described above, will constitute participation in the San Francisco Regional Monitoring Program (RMP), as described by the Regional Board's Regional Monitoring Plan.

The Discharger shall prepare a report and presentation on Disposal site modelling using the STFATES computer model, as appended to the USACOE/USEPA draft Inland Testing Manual. The Discharger shall conduct six model runs using Richmond Harbor data. Key variables, such as disposal volume, tidal stage, density and bathymetry, and contaminant level shall be varied and the results presented to Regional Board staff. Additionally, the report shall analyze the sensitivity of the model and shall discuss, in detail, the limitations of the model.

### IV. REPORTS TO BE FILED WITH THE REGIONAL BOARD

- 1. **Begin Dredging:** Report by telephone to the Regional Board five days ahead of the scheduled date of commencement of dredging operation. All reports shall be made to the following phone number: (510) 286-0841.
- 2. <u>Non-Compliance</u>: In the event the Discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions, the Discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include

USACOE WDR: Self Monitoring

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pertinent information explaining reasons for the non-compliance and shall indicate what steps were taken to prevent the problem from recurring.

3. **Ouarterly Reports**: A quarterly report and a summary of findings shall be submitted to the Executive Officer one month after conclusion of maintenance dredging activities. This report should include data summaries in tabular and graphical form, methods employed, monitoring and assessment findings, impacts of disposal activities on beneficial uses, and recommendations for disposal practices and monitoring and assessment activities for future operations. Therefore, based upon an effective date of March 1, 1995, the following schedule will apply.

FIRST QUARTER	January 1 - March 31, 1995	May 1, 1995
SECOND QUARTER	April 2 - June 30, 1995	August 1, 1995
THIRD QUARTER	July 2 - September 30 1995	November 1, 1995
FORTH QUARTER	October 2, 1995 - December 31, 1996	February 1, 1996
FIFTH QUARTER	January 2 - March 31, 1996	May 1, 1996
SIXTH QUARTER	April 2 - June 30, 1996	August 1, 1996
SEVENTH QUARTER	July 2 - September 1, 1996	November 1, 1996
EIGHTH QUARTER	October 2, 1995 - December 31, 1997	February 1, 1997

- 4. The written report shall contain a statement by the District Engineer, San Francisco District, COE or his designee, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.
- I, Steven R. Ritchie, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:
- 1. Has been developed in accordance with the procedures set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 93-015.
- 2. Is effective on March 1, 1995.
- 3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the Discharger and revisions will be ordered by the Executive Officer.

Steven R. Ritchie

Executive Officer